

Please add new claims 27-30, as follows:

27. (New) The smoking article of claim 9 wherein said wrapper has an inherent permeability of 25 CORESTA.

28. (New) The smoking article of claim 9 wherein said wrapper has an inherent permeability of 50 CORESTA.

29. (New) The smoking article of claim 9 wherein said wrapper has an inherent permeability of 80 CORESTA.

30. (New) The smoking article of claim 9 wherein said wrapper has an inherent permeability of 180 CORESTA.

#### REMARKS

Applicant, his principal representative in Great Britain, and the undersigned have carefully reviewed the Office Action of December 14, 2001 in the above-identified patent application together with the prior art references cited and relied on by the Examiner. In response, the specification and claims of the application have been amended in an effort to more clearly patentably define the subject invention over the prior art cited and relied on by the Examiner. It is believed that the claims now pending in the application are patentable. Reexamination and reconsideration of the application

and allowance of the claims is respectfully requested.

The subject application discloses, and claims smoking articles that provide a reduction in sidestream smoke. This is accomplished by utilizing a blend of shredded tobacco and shredded reconstituted tobacco sheet. The reconstituted tobacco sheet contains activated carbon particles. These are retained in the shredded reconstituted tobacco sheet which is blended with the shredded tobacco. This blend is formed into a tobacco rod which is then wrapped using a wrapper that has an inherent permeability of at least 20 CORESTA. The resulting smoking article reduces sidestream smoke while providing perceived mildness in the mainstream smoke. The reduction in sidestream smoke occurs over a wide range of inherent porosities of the wrapper of the tobacco rod. This is particularly true using wrappers with inherent permeabilities or porosities high enough so that special precautions do not have to be taken to prevent self-extinguishing of the smoking article.

In the Office Action of December 14, 2001 the Examiner withdrew newly presented claims 23-26 from consideration. These newly submitted claims depend from claim 9. It is believed that these claims are properly considerable with claim 9. These claims recite the method of making the smoking article set forth in claim 9. The inventive features of claim 9 are the use of shredded tobacco and shredded reconstituted tobacco sheet, containing activated carbon, to form a tobacco rod which is placed in a wrapper having an inherent permeability of at least 20 CORESTA. Claims 23-26 are believed to include the inventive features of claim 9. It is requested that the

Examiner reconsiders his decision to withdraw claims 23-26 from consideration.

Claim 15 was rejected under 35 U.S.C. 112, second paragraph as being indefinite. The Examiner objected to the term "sufficient" as being a relative term that rendered the claim indefinite. Claim 15 has now been amended to change the term "sufficient" to 30%. Support for this recitation is provided in the specification of the application, as filed, at page 6, line 5. It is believed that claim 15, as amended now complies with 35 U.S.C. 112, second paragraph and that it particularly points out and distinctly claims the subject matter which applicant believes to be invention

Claims 9, 12 and 15 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent No.3,805,803 to Hedge in view of U.S. patent No. 5,056,537 to Brown. Hedge was cited as showing a tobacco rod having shredded tobacco and reconstituted tobacco. Brown was cited as describing wrappers with the claimed porosity.

Claims 10, 11, 13 and 14 were rejected under 35 U.S.C. 103(a) over the above combination of references and further in view of U.S. patent No. 5,261,425 to Raker. The Raker reference was cited as disclosing the claimed source of carbon.

Claims 9 and 15 have been amended. New claims 27-30 have been added. It is believed that these claims are patentable over the prior art cited and relied on by the Examiner, taken either singly or in combination for the following reasons.

The specification of the application, as filed, has been amended to recite that the porosity or permeability of the wrapper is its inherent porosity or permeability. This

change is believed not to add new matter. It has been made to provide support for the language added to claim 9.

In the Examiner's rejection Fig. claim 9, it was recited that Hedge teaches the provision of a tobacco rod using shredded tobacco and reconstituted tobacco. It was also recited that Brown discloses wrappers with the claimed porosity. As will be discussed, a careful reading of these two references reveals that while these statements are correct, they do not provide a teaching that renders obvious the smoking article recited in claim 9, as filed and clearly as amended.

In the language of claim 9, it is recited that the tobacco rod has a blend of "shredded tobacco and shredded reconstituted tobacco sheet." In the Hedge patent, the disclosure is directed to a smoking article that uses reconstituted tobacco. However, in the example 2 embodiment relied on by the Examiner the reconstituted tobacco came from coherent filaments that were extruded in a cross-sectional shape similar to cut tobacco. This is different from amended claim 9 which recites use of a shredded reconstituted sheet of tobacco, not an extruded filament. In the other two examples in Hedge, the tobacco rod was made entirely of shredded reconstituted tobacco sheet, not a combination of shredded tobacco and shredded reconstituted tobacco sheet, as required in claim 9.

The secondary Brown reference was cited as teaching the use of a wrapper having the claimed porosity. As discussed in detail in Brown, at the Column 9, lines 10-40 location pointed out by the Examiner, wrappers can have an inherent porosity or a

net porosity. An inherent porosity is the natural porosity of the wrapper without any additional treatment. Such treatments, which are typically wrapper perforating steps, increase the porosity of the wrapper and result in a net porosity that is greater; i.e. a higher CORESTA measurement, than the natural or inherent porosity. Such porosity increasing treatments add additional steps to the manufacturing process, add costs to the process and may result in a perforated wrapper in which the porosity is not uniform.

The intent of the subject invention is to provide a smoking article with a reduction of sidestream smoke. One way to do this is to use very low porosity wrapper. However, this is apt to increase the tendency of the smoking article to extinguish itself. In the past, this was addressed by adding burn enhancing materials to the tobacco rod. Increasing the porosity of the wrapper has, in the past, increased the amount of sidestream smoke.

In the present invention, the amount of sidestream smoke is reduced by including activated carbon in the reconstituted tobacco sheet which is then shredded and is mixed with shredded tobacco to form the tobacco rod. No mention is made of treating the wrapper to increase its porosity. It is understood that a reference to porosity, in the absence of a discussion regarding porosity enhancing steps, means inherent porosity. The specification of the application has been amended to recite that the porosity of the wrapper is its inherent porosity. This language has also been added to claim 9. It is believed that this addition to the specification does not constitute new matter. The specification of the subject application is silent with respect to any porosity

enhancing modifications of the web. In the absence of such a discussion and in light of the aim of the invention to reduce sidestream smoke without the added step of wrapper treatment, it is believed that this language is implicit in the application, as filed.

In the Brown reference, the tobacco rod materials is not the same as the subject invention. The wrapper material has a low inherent permeability that includes a high application of potassium succinate as a burn additive. Such a low permeability paper would result in possible extinguishment of the smoking article without the use of the burn additives. In the second wrapper discloses in Brown, the permeability of the wrapper has been increased by electrostatic perforating to result in a high net permeability of greater than 50 CORESTA units.

It is clear that the combination of the Hedge and Brown references do not result in the smoking article recited in amended claim 9 of the subject application. The combination of these two references would result in a tobacco rod having shredded tobacco and reconstituted tobacco filaments extruded under high pressure. This tobacco rod would be placed in the high net porosity wrapper of Brown, which wrapper is the result of subjecting a relatively low inherent porosity wrapper to an electrostatic perforating process. As discussed above, the use of a high net porosity wrapper is not contemplated by the subject invention. The intent of the subject invention is to provide a smoking article that will have less sidestream smoke which uses a tobacco rod including shredded reconstituted tobacco sheet containing carbon and a wrapper with an inherent permeability of at least 20 CORESTA. That invention, as recited in

amended claim 9, is not taught or suggested by the Hedge reference taken in view of the Brown reference. Accordingly, claim 9 as amended, is believed to be patentable.

Claims 12 and 15 depend from claim 9 and are also believed to be allowable. Claim 15 has been amended, as discussed above. Newly presented claims 27-30 all depend from believed allowable amended claim 9. These claims recite higher porosity wrappers. The basis for this claim language can be found in the specification of the application, as filed, at page 7. It is believed that these newly presented claims are also patentable.

The secondary reference to Raker does not provide the teachings missing from the Hedge and Brown references. Raker discloses the use of coconut hulls as a source of carbon. It is noted that Raker also discussed the difference between inherent permeability and net permeability of a wrapper. This is presented at Column 10 starting at line 20. Thus claims 10, 11 13 and 14, which depend from believed allowable claim 9, as amended, are also believed to be patentable.

The various other references cited by the Examiner, as well as the ones brought to the attention of the Examiner, have been reviewed. Since they were not relied on in the rejections of the claims, no further discussion thereof is believed to be required.

#### SUMMARY

The specification of the application has been amended. No new matter has been added by the amendment which provides antecedent basis for language added to the claims. Claims 9 and 15 have been amended. New claims 27-30 have been

added. Claims 10-14 have been carried forwarded. The Examiner's withdrawal of claims 24-26 from consideration is requested to be reconsidered. It is believed that all of the claims now pending in the subject application are patentable. Allowance of the claims, and passage of the application to issue is respectfully requested.

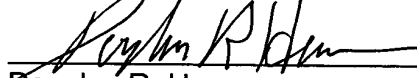
Respectfully submitted,

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**MARKED-UP COPY AMENDED PARAGRAPHS**

**SAMPSON - 09/582,232**

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As far as we are aware at present the only disclosure of the use of carbon in a tobacco rod in a situation where reduction of sidestream smoke was aimed for is in US-A-5092353 (EP-A-378774). However the aim in that disclosure was to reduce sidestream smoke by the use of wrapping paper of very low inherent permeability (< 10 CORESTA units). To compensate for the tendency this will cause for the cigarette to be self-extinguishing, pyrolyzed alpha-cellulose was present in the tobacco rod.

The present invention, therefore, is contrasted with all of this prior art by providing in a tobacco rod an activated carbon for having an effect on the chemistry of smoke while not being limited to the use of low inherent permeability papers, and specifically not to papers of < 10 CORESTA.

Furthermore, the present invention provides the addition of activated carbon in specific particulate form in reconstituted tobacco sheet to the tobacco rod of the smoking article in such a way that greater mildness of the smoking article is perceived by the smoker in the mainstream smoke, and at the same time there is a reduction in sidestream smoke over a wide range of inherent porosities of the wrapper of the article and in particular with inherent porosities high enough that special precautions do not have to be taken to prevent self-extinction of the article.

The cigarettes were 84 mm long, 7.9 mm diameter, unfiltered. The wrapping was an 80 CORESTA inherent permeability flax-based paper, with 2% potassium citrate burn enhancer.

Cigarettes and controls were prepared using the same tobacco blend and reconstituted tobacco sheet as in Example 1, but using respectively papers of inherent permeability of 25, 50, 80 and 180 CORESTA units porosity. Sidestream smoke from the inventive cigarettes and from the controls had significant reductions both in semi-volatile and in nicotine content, as seen in Table 3. Increased carbon monoxide and carbon dioxide production is assumed to be due to the presence of the particulate carbon in the tobacco sheet.

**MARKED-UP COPY OF AMENDED CLAIMS 9 AND 15**

**SAMPSON - 09/582,232**

9. (Amended) A smoking article comprising:

a tobacco rod, said tobacco rod having [which comprises] a blend of shredded tobacco and shredded reconstituted tobacco sheet, said [the] reconstituted tobacco sheet containing activated carbon particles; and

a wrapper around said [the] tobacco rod, said [the] wrapper having an inherent [a] permeability of at least 20 CORESTA [or greater].

15. (Amended) The smoking [An] article according to claim 9 further wherein said [the] shredded reconstituted tobacco sheet contains 30% [sufficient] activated carbon particles to reduce [the] aldehyde content of mainstream smoke when the smoking article is smoked.